

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:  
Chen et al.

Serial No.: 10/770,737

Filed: February 3, 2004

For: MODULAR ELECTROCHEMICAL  
PROCESSING SYSTEM

MAIL STOP APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir or Madam:

§ Confirmation No.: 1009  
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§ Group Art Unit: 1734  
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§ Examiner: Brenda A. Lamb  
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**CERTIFICATE OF MAILING OR TRANSMISSION**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office to fax number 571-273-8300 to the attention of Examiner Brenda A. Lamb, or electronically transmitted via EFS-Web, on the date shown below:

August 14, 2007  
Date

  
Keith M. Tackett

**REPLY BRIEF**

Applicant submits this Reply Brief to the Board of Patent Appeals and Interferences following the answer of the Examiner of Group Art Unit 1734 dated June 18, 2007 and the supplemental answer dated July 26, 2007, both supporting final rejection of claims 21 and 23-28. One copy of this reply brief is submitted for use by the Board.

## Remarks

Applicant has reviewed the Examiner's Answer mailed June 18, 2007 and the supplemental Examiner's Answer mailed July 26, 2007 and provides the following reply in further support of the arguments presented in the Appeal Brief filed February 5, 2007.

The Examiner contends on page 4 of both Examiner's Answers, "The claims do not require that the detachable module include two separate cells rather is open to a single cell which is capable of providing electroless plating and pretreatment/post treatment of the substrate." Applicant respectfully traverses this contention and refers the Examiner to claim 21 which requires "at least two substrate processing modules in detachable communication with the factory interface, *each* of the at least two substrate processing modules including a pretreatment/post treatment cell *and* an electroless processing cell, " which *Hongo et al.* does not teach, show, or suggest. Each interchangeable unit (detachable module) as taught by *Hongo et al.* does not include both a pretreatment/post treatment cell *and* an electroless processing cell. The Board is referred to reference numerals 102, 201, and 202 in FIG. 2, paragraph [0014] lines 9-15, paragraph [0017], and paragraph [0026] lines 6-14 of the present application as an illustrative example and description of two separate cells within a single detachable module of an electroless processing system, in accordance with the claims.

Rather, *Hongo et al.* teaches that there may be a detachable electroless plating unit, such as a seed layer forming unit, and a *separate* detachable cleaning unit (col. 5, lines 4-5, 21-27, and 59-65). Again with regard to FIG. 31, *Hongo et al.* teaches a *separate* electroless Cu plating unit (seed layer forming unit 112) or electroless Ru plating unit (barrier layer forming unit 111) and a *separate* cleaning unit 115 or 118, wherein the *individual* units (plating, cleaning, annealing, and the like) may be interchangeable (col. 33, line 59 to col. 34, line 15). Again, Applicant stresses that any interchangeable unit (detachable module) as taught by *Hongo et al.* does not include both a pretreatment/post treatment cell *and* an electroless processing cell as required by claim 21.

As mentioned on page 13 of the Appeal Brief filed February 5, 2007, *Verhaverbeke et al.* fails to overcome the deficiencies in *Hongo et al.*

### **Conclusion**

The Examiner errs in finding that *Hongo et al.* anticipates or suggests claims 21 and 23-28. The Examiner also errs in finding that *Hongo et al.* in view of *Verhaverbeke et al.* renders claim 22 obvious. It is respectfully requested that the Board reverse the findings of the Examiner.

Respectfully submitted,



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